

Remarks

Claim 1 is cancelled. Claims 2, 5, 8, 11, 12 and 14 are amended and claim 15 is added. Claims 2 to 15 are pending in this application of which only claim 15 is in independent form.

Claims 1 to 14 were rejected under 35 USC 102(b) as being anticipated by Lux et al. Added claim 15 replaces claim 1 and the following will show that claim 15 patentably distinguishes the invention over this reference.

The essence of the applicants' invention is the arrangement of a guide ramp which increases in elevation in the axial direction with the course of the air flow. Referring to FIG. 3, it can be seen that the guide ramp 7 rises in the direction of the rotational axis 20 with the course of the air flow. This rise in elevation of the ramp effects a deflection of the air flow and the dirt particles entrained therein in the axial direction or direction of the rotational axis 20. As explained in the applicants' disclosure starting with the sentence beginning on page 3, line 11:

"The guide ramp effects a redirection of the air flow, which is moved by the fan, in such a way that a component of the air flow is directed in the axial direction. Entrained dirt particles likewise take on a flight path with an axially directed component. The direction deflection of the particles takes place, on the one hand, by a guide action of the deflected air flow and, on the other hand, several particles can impinge against the guide ramp whereby they likewise obtain an axial directional

component when deflected. Because of the mass inertia of the dirt particles (which is greater compared to the air flow), this axial velocity component is maintained at least partially even downstream of the guide ramp."

As shown in FIG. 3 of the applicants' drawings, the take-out opening 3 is disposed downstream of the guide ramp 7 and branches off a second component of the air flow as a combustion air flow for the internal combustion engine and this second component is substantially free of the dirt particles. The above is now more clearly defined in added claim 15, with the clauses:

"an aerodynamically formed guide ramp disposed outside of said fan wheel in radial direction and said guide ramp being formed so as to rise in the direction of said rotational axis with the course of said air flow so as to deflect a first component of said air flow together with said dirt particles in the direction of said rotational axis; and,

a take-out opening disposed downstream of said guide ramp in the region of said air flow to branch off a second component of said air flow as a combustion air flow for said internal combustion engine substantially free of said dirt particles."

The above features and limitations carefully define the applicants' invention over Lux et al.

Lux et al discloses a blower arrangement of a portable handheld work apparatus driven by an internal combustion engine. According to FIG. 1 of Lux et al, a radial blower is provided having a fan wheel 5 and a spirally-shaped blower housing 8 which at least partially encloses the fan wheel 5. An air flow 4 is moved from which a combustion air flow is branched off for the engine by means of a pass-through 20.

Upstream of the pass-through 20, air-guide walls (13, 16, 16a, 16b) are provided. From FIGS. 1 and 2 of Lux et al, it can be seen that the wall 13 lies parallel to the plane of rotation of the fan wheel 5 and that there is no axial extension whatsoever. Guide walls (16, 16a, 16b) are arranged at right angles to the wall 13 and run in the peripheral direction with a radial component referred to the flow direction. The inclined position in radial direction is given by angles ( $\alpha$ ,  $\beta$ ). This inclined position influences the air flow 4 apparently in radial direction. Neither the wall 13 nor the walls (16, 16a, 16b) can impart an axial deflection to the air flow 4.

As explained above, the applicants' fan arrangement as defined in claim 15 provides for an aerodynamically formed guide ramp which rises in axial direction with the air flow. The aerodynamically formed axial rise of the guide ramp imparts an axial deflection to the air flow produced by the fan wheel and also the dirt particles. Downstream of the guide ramp, a second component substantially free of dirt particles is branched off as a combustion air flow for the engine. These features are all set forth in added claim 15 quoted above so that this claim should now patentably distinguish the applicants' invention over Lux et al and be allowable.

The remaining claims 2 to 14 are all dependent from claim 15 so that these claims too should now be allowable.

Reconsideration of the application is respectfully  
requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Walter Ottesen", written in a cursive style.

Walter Ottesen  
Reg. No. 25,544

Walter Ottesen  
Patent Attorney  
P.O. Box 4026  
Gaithersburg, Maryland 20885-4026

Phone: (301) 869-8950

Date: February 7, 2005